

The listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Previously Presented) A method of manufacturing a semiconductor device comprising the steps of:

- forming a heat retaining film on an insulating surface;
- etching a part of said heat retaining film;
- forming a semiconductor film in contact with said insulating surface and said heat retaining film;
- forming a reflective film covering said semiconductor film wherein a portion of said reflective film overlaps said heat retaining film;
- etching said portion of the reflective film;
- irradiating said reflective film and said semiconductor film with a laser beam to crystallize said semiconductor film; and
- manufacturing a thin film transistor using the crystallized semiconductor film in contact with said heat retaining film as a channel formation region.

2. (Previously Presented) A method of manufacturing a semiconductor device comprising the steps of:

- forming a heat retaining film on an insulating surface;
- etching a part of said heat retaining film;
- forming a first insulating film covering said heat retaining film;
- etching a part of said first insulating film;
- forming a semiconductor film in contact with said insulating surface and said first insulating film;
- forming a second insulating film covering said semiconductor film;

forming a reflective film covering said second insulating film wherein a portion of said reflective film overlaps said heat retaining film;

etching said portion of the reflective film;

irradiating said reflective film and said semiconductor film with a laser beam to crystallize said semiconductor film;

manufacturing a thin film transistor using the crystallized semiconductor film as a channel formation region in contact with said heat retaining film via said first insulating film therebetween.

3. (Original) A method of manufacturing a semiconductor device comprising the steps of:

forming a heat retaining film on an insulating surface;

etching a part of said heat retaining film;

forming a first insulating film covering said heat retaining film;

etching a part of said first insulating film;

forming a semiconductor film in contact with said insulating surface and said first insulating film;

forming a second insulating film covering said semiconductor film;

forming a reflective film covering said second insulating film wherein a portion of said second insulating film overlaps said heat retaining film;

etching said portion of the second insulating film;

irradiating said reflective film and said semiconductor film with a laser beam to crystallize said semiconductor film; and

manufacturing a thin film transistor using the crystallized semiconductor film as a channel formation region in contact with said heat retaining film via said first insulating film therebetween.

4. (Original) A method of manufacturing a semiconductor device comprising the steps of:

- forming a heat retaining film on an insulating surface;
- etching a part of said heat retaining film;
- forming a semiconductor film in contact with said insulating surface and said heat retaining film;
- forming a reflective film covering said semiconductor film;
- etching a part of said reflective film to form a polygonal shape having at least one vertex smaller than  $60^\circ$  and corresponding with an edge of said heat retaining film via the semiconductor film therebetween;
- irradiating said reflective film and said semiconductor film with a laser beam to crystallize said semiconductor film; and
- manufacturing a thin film transistor using the crystallized semiconductor film as a channel formation region in contact with said heat retaining film.

5. (Original) A method of manufacturing a semiconductor device comprising the steps of:

- forming a heat retaining film on an insulating surface;
- etching a part of said heat retaining film;
- forming a first insulating film covering said heat retaining film;
- etching a part of said first insulating film;
- forming a semiconductor film in contact with said insulating surface and said first insulating film;
- forming a second insulating film covering said semiconductor film;
- forming a reflective film covering said second insulating film;
- etching a part of said reflective film to form a polygonal shape having at least one vertex smaller than  $60^\circ$  and corresponding with an edge of said heat retaining film via the semiconductor film therebetween;

irradiating said reflective film and said semiconductor film with a laser beam to crystallize said semiconductor film; and

manufacturing a thin film transistor using the crystallized semiconductor film as a channel formation region in contact with said heat retaining film with the first insulating film interposed therebetween.

6. (Currently Amended) A method of manufacturing a semiconductor device comprising the steps of:

forming a heat retaining film on an insulating surface;

etching a part of said heat retaining film;

forming a first insulating film covering said heat retaining film;

etching a part of said first insulating film;

forming a semiconductor film in contact with said insulating surface and said first insulating film;

forming a second insulating film covering said semiconductor film;

forming a reflective film covering said second insulating film;

etching a part of said reflective film to form a polygonal shape having at least one vertex smaller than 60° and corresponding with an edge of said heat retaining film via the semiconductor film therebetween;

etching a portion of said second insulating film, said portion overlapping said heat retaining film;

irradiating said reflective film and said semiconductor film with a laser beam to crystallize said semiconductor film; and

manufacturing a thin film transistor using the crystallized semiconductor film as a channel formation region in contact with said heat retaining film with the first insulating film interposed therebetween.

7. (Original) The method according to claim 1 wherein the heat retaining film comprises silicon oxide, which contains one selected from the group consisting of methyl (CH<sub>3</sub>) group, ethyl (C<sub>2</sub>H<sub>5</sub>) group, propyl (C<sub>3</sub>H<sub>7</sub>) group, butyl (C<sub>4</sub>H<sub>9</sub>) group, vinyl (C<sub>2</sub>H<sub>3</sub>) group, phenyl (C<sub>6</sub>H<sub>5</sub>) group, and CF<sub>3</sub> group.

8. (Original) The method according to claim 2 wherein the heat retaining film comprises silicon oxide, which contains one selected from the group consisting of methyl (CH<sub>3</sub>) group, ethyl (C<sub>2</sub>H<sub>5</sub>) group, propyl (C<sub>3</sub>H<sub>7</sub>) group, butyl (C<sub>4</sub>H<sub>9</sub>) group, vinyl (C<sub>2</sub>H<sub>3</sub>) group, phenyl (C<sub>6</sub>H<sub>5</sub>) group, and CF<sub>3</sub> group.

9. (Original) The method according to claim 3 wherein the heat retaining film comprises silicon oxide, which contains one selected from the group consisting of methyl (CH<sub>3</sub>) group, ethyl (C<sub>2</sub>H<sub>5</sub>) group, propyl (C<sub>3</sub>H<sub>7</sub>) group, butyl (C<sub>4</sub>H<sub>9</sub>) group, vinyl (C<sub>2</sub>H<sub>3</sub>) group, phenyl (C<sub>6</sub>H<sub>5</sub>) group, and CF<sub>3</sub> group.

10. (Original) The method according to claim 4 wherein the heat retaining film comprises silicon oxide, which contains one selected from the group consisting of methyl (CH<sub>3</sub>) group, ethyl (C<sub>2</sub>H<sub>5</sub>) group, propyl (C<sub>3</sub>H<sub>7</sub>) group, butyl (C<sub>4</sub>H<sub>9</sub>) group, vinyl (C<sub>2</sub>H<sub>3</sub>) group, phenyl (C<sub>6</sub>H<sub>5</sub>) group, and CF<sub>3</sub> group.

11. (Original) The method according to claim 5 wherein the heat retaining film comprises silicon oxide, which contains one selected from the group consisting of methyl (CH<sub>3</sub>) group, ethyl (C<sub>2</sub>H<sub>5</sub>) group, propyl (C<sub>3</sub>H<sub>7</sub>) group, butyl (C<sub>4</sub>H<sub>9</sub>) group, vinyl (C<sub>2</sub>H<sub>3</sub>) group, phenyl (C<sub>6</sub>H<sub>5</sub>) group, and CF<sub>3</sub> group.

12. (Original) The method according to claim 6 wherein the heat retaining film comprises silicon oxide, which contains one selected from the group consisting of

methyl ( $\text{CH}_3$ ) group, ethyl ( $\text{C}_2\text{H}_5$ ) group, propyl ( $\text{C}_3\text{H}_7$ ) group, butyl ( $\text{C}_4\text{H}_9$ ) group, vinyl ( $\text{C}_2\text{H}_3$ ) group, phenyl ( $\text{C}_6\text{H}_5$ ) group, and  $\text{CF}_3$  group.

13. (Original) The method according to claim 1 wherein said heat retaining film is selected from the group consisting of a porous silicon film and a porous silicon oxide film.

14. (Original) The method according to claim 2 wherein said heat retaining film is selected from the group consisting of a porous silicon film and a porous silicon oxide film.

15. (Original) The method according to claim 3 wherein said heat retaining film is selected from the group consisting of a porous silicon film and a porous silicon oxide film.

16. (Original) The method according to claim 4 wherein said heat retaining film is selected from the group consisting of a porous silicon film and a porous silicon oxide film.

17. (Original) The method according to claim 5 wherein said heat retaining film is selected from the group consisting of a porous silicon film and a porous silicon oxide film.

18. (Original) The method according to claim 6 wherein said heat retaining film is selected from the group consisting of a porous silicon film and a porous silicon oxide film.

19. (Original) The method according to claim 1 wherein said semiconductor film is heated during the irradiation of the laser beam.

20. (Original) The method according to claim 2 wherein said semiconductor film is heated during the irradiation of the laser beam.

21. (Original) The method according to claim 3 wherein said semiconductor film is heated during the irradiation of the laser beam.

22. (Original) The method according to claim 4 wherein said semiconductor film is heated during the irradiation of the laser beam.

23. (Original) The method according to claim 5 wherein said semiconductor film is heated during the irradiation of the laser beam.

24. (Original) The method according to claim 6 wherein said semiconductor film is heated during the irradiation of the laser beam.

25. (Original) The method according to claim 1 wherein said semiconductor device is selected from the group consisting of a mobile phone, a video camera, a digital camera, a projector, a goggle-type display, a personal computer, a DVD player, an electronic book, and a portable information terminal.

26. (Original) The method according to claim 1 wherein said semiconductor device is an electroluminescence display device.

27. (Original) The method according to claim 2 wherein said semiconductor device is selected from the group consisting of a mobile phone, a video camera, a

digital camera, a projector, a goggle-type display, a personal computer, a DVD player, an electronic book, and a portable information terminal.

28. (Original) The method according to claim 2 wherein said semiconductor device is an electroluminescence display device.

29. (Original) The method according to claim 3 wherein said semiconductor device is selected from the group consisting of a mobile phone, a video camera, a digital camera, a projector, a goggle-type display, a personal computer, a DVD player, an electronic book, and a portable information terminal.

30. (Original) The method according to claim 3 wherein said semiconductor device is an electroluminescence display device.

31. (Original) The method according to claim 4 wherein said semiconductor device is selected from the group consisting of a mobile phone, a video camera, a digital camera, a projector, a goggle-type display, a personal computer, a DVD player, an electronic book, and a portable information terminal.

32. (Original) The method according to claim 4 wherein said semiconductor device is an electroluminescence display device.

33. (Original) The method according to claim 5 wherein said semiconductor device is selected from the group consisting of a mobile phone, a video camera, a digital camera, a projector, a goggle-type display, a personal computer, a DVD player, an electronic book, and a portable information terminal.



34. (Original) The method according to claim 5 wherein said semiconductor device is an electroluminescence display device.

35. (Original) The method according to claim 6 wherein said semiconductor device is selected from the group consisting of a mobile phone, a video camera, a digital camera, a projector, a goggle-type display, a personal computer, a DVD player, an electronic book, and a portable information terminal.

36. (Original) The method according to claim 6 wherein said semiconductor device is an electroluminescence display device.

37.-48. (Canceled)